

IN THE CLAIMS:

Claims 1-8 (previously cancelled)

9. (Previously added) A bone fixation system comprising:

an elongated plate having a top surface and a bottom surface and at least two nodes along a length thereof, each of said nodes including first and second holes extending between said top and bottom surfaces, each of said first and second holes including a recessed portion adjacent said top surface having a first diameter and each of said first and second holes defining an opening at said bottom surface having a second diameter less than said first diameter;

a first bone engaging fastener having a first elongated shank defining bone engaging threads thereon and a first enlarged head at one end thereof, said first shank being configured so that said first bone engaging fastener can be inserted through either of said first and second holes from said top surface of said plate with said first enlarged head at least partially positioned in said recessed portion of said hole, wherein said first bone engaging fastener is further configured so that said first head can be positioned within said recessed portion so that said first elongated shank can assume a plurality of angles relative to said bottom surface of said plate;

a second bone engaging fastener having a second elongated shank defining bone engaging threads thereon and a second enlarged head at one end thereof, said second shank being configured so that said second bone engaging fastener can be inserted through either of said first and second holes from said top surface of said plate with said second enlarged head at least partially positioned in said recessed portion, wherein said second bone engaging fastener is further configured so that said second head of said second bone engaging fastener cannot be pivoted within said recessed portion and said second shank assumes a fixed orientation relative said bottom surface of said plate; and

a locking screw assembly for locking said head of said bone engaging fasteners positioned in said recessed portions of said first and second holes of at least one of said nodes, wherein said locking screw assembly includes a washer movable from a first

position allowing insertion of said first and second bone engaging fasteners in said first and second holes to a second position overlapping said first and second holes.

10. (Previously added) The system of claim 9, wherein:

said first bone engaging fastener has a first intermediate portion between said first enlarged head and said first elongated shank, said first intermediate portion having a third diameter that is substantially smaller than said second diameter; and

said second bone engaging fastener has a second intermediate portion between said second enlarged head and said second elongated shank, said second intermediate portion having a fourth diameter that is approximately equal to said second diameter.

11. (Previously added) The bone fixation system of claim 9, wherein said locking screw assembly includes:

a fastener bore defined in said plate between said first and second holes of one of said at least two nodes;

said washer defining a central aperture and a recess communicating with said central aperture, said washer further configured to contact said enlarged heads of said bone engaging fasteners positioned in said recessed portions of said first and second holes; and

a locking fastener having a head configured to be recessed within said recess of said washer and an elongated shank extending through said central aperture to engage said fastener bore of said plate.

12. (Previously added) The bone fixation system of claim 9, wherein said washer includes an outer circumferential surface with a concave curvature substantially corresponding to a partially spherical surface on each of said enlarged heads of said first and second bone engaging fasteners.

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14. (Previously added) A bone fixation system comprising:
an elongated plate sized to span between at least three vertebrae, said plate defining three sets of two holes, a first set of holes being alignable over a first vertebra, a second set of holes being alignable over a second vertebrae, and a third set of holes being alignable over a third vertebrae, wherein said plate has a top surface and a bottom surface and each of said holes extends between said top and bottom surfaces and includes a recessed portion adjacent said top surface; and

six bone engaging fasteners, each having an enlarged head and a threaded shank sized to be positioned through said holes, wherein:

at least one of said six bone engaging fasteners includes a first head that can be pivoted within said recessed portion of said holes so that said first bone engaging fastener can assume a plurality of angles relative to said bottom surface of said plate; and

at least one of said six bone engaging fasteners includes a second head that cannot be pivoted within said recessed portion of said holes so that said second bone engaging fastener assumes a fixed orientation relative said bottom surface of said plate.

15. (Previously added) The bone fixation system of claim 14, wherein each of said recessed portions is spherical.

16. (Previously added) The bone fixation system of claim 14, further comprising:
a locking screw assembly for each of said three sets of two holes, each of said locking screw assemblies having a washer configured to overlap an adjacent one of said set of two holes.

17. (Previously added) The bone fixation system of claim 16, wherein said washer has an outer circumferential surface with a concave curvature substantially corresponding to a partially spherical surface of said enlarged heads of said bone engaging fasteners.

18. (Previously added) The bone fixation system of claim 16, wherein each of said locking screw assemblies further includes:

a fastener bore in said plate adjacent said set of two holes; and

said washer defining a central aperture, a recess communicating with said aperture, and a bottom surface configured to contact said enlarged heads of bone engaging fasteners in said adjacent set of two holes.

19. (Previously added) The bone fixation system of claim 18, wherein said plate further defines a locking recess in a top surface of said plate in communication with a respective one of said fastener bores and each hole of said adjacent set of two holes includes a flared recess overlapping said locking recess.

20. (Previously added) The bone fixation system of claim 18, wherein said washer includes a first portion overlapping said adjacent set of two holes when said washer is in a first position relative to said two holes and having a second portion that does not overlap said two holes when said washer is in a second position, whereby said bone engaging fasteners can be inserted into said two holes with said washer engaged to said plate when said washer is in said second position.

21. (Previously added) The bone fixation system of claim 20, further comprising a locking fastener having a head configured to be recessed within said recess of said washer and an elongated shank extending through said central aperture and configured to engage said fastener bore of said plate.

22. (Previously added) The bone fixation system of claim 21, wherein said head of said locking fastener defines a lower conical surface for contacting said washer.

23. (Previously added) A bone fixation system, comprising:

a plate with a first opening having a first opening perimeter and a second opening having a second opening perimeter, said plate having a top surface and a bottom surface;

a first fastener having a first shank with a first shank perimeter substantially corresponding to said first opening perimeter; and

a second fastener having a second shank with a second shank perimeter substantially smaller than said second opening perimeter.

24. (Previously added) The system of claim 23, wherein:

said first fastener is positionable at a substantially fixed angle relative to said bottom surface of said plate; and

said second fastener is positionable at a plurality of angles relative to said bottom surface of said plate.

25. (Previously added) The system of claim 23, further comprising:

a locking assembly contactable with at least one of said first fastener and said second fastener.

26. (Previously added) The system of claim 23, wherein in a direction of a longitudinal axis of said plate said first opening perimeter comprises a first opening longitudinal dimension, said first shank perimeter comprises a first shank longitudinal dimension, and said first shank longitudinal dimension is substantially equal to said first opening longitudinal dimension.

27. (Previously added) The system of claim 26, wherein in the direction of the longitudinal axis of said plate said second opening perimeter comprises a second opening longitudinal dimension, said second shank perimeter comprises a second shank longitudinal dimension, and said second shank longitudinal dimension is substantially less than said second opening longitudinal dimension.

28. (Previously added) The system of claim 23, further comprising a fusion member holdable in a position by the plate between adjacent bone portions.

29. (Previously added) The system of claim 23, wherein at least one of the first fastener and the second fastener comprises a tapered portion.

30. (Previously added) A bone fixation system, comprising:
a plate with a first opening having a first opening size and a second opening having a second opening size, said plate having a top surface and a bottom surface;
a first fastener having a first shank portion positionable in said first opening, said first shank portion having a first shank size substantially corresponding to said first opening size such that said plate contacts said first shank portion around said first shank portion when said first shank portion is positioned in said first opening; and
a second fastener having a second shank portion positionable in said second opening, said second shank portion having a second shank size substantially smaller than said second opening size such that said plate is spaced about said second shank portion when said second shank portion is positioned in said second opening.

31. (Previously added) The system of claim 30, wherein:
said first fastener is positionable at a substantially fixed angle relative the bottom surface of said plate; and
said second fastener is positionable at a plurality of angles relative said bottom of said plate.

32. (Previously added) The system of claim 30, further comprising a locking assembly contactable with each of said first and second fasteners.

33. (Previously added) The system of claim 30, further comprising a fusion member holdable in a position by the plate between adjacent bone portions.

34. (Previously added) The system of claim 30, wherein at least one of the first fastener and the second fastener comprises a tapered portion.

35. (Previously added) A system for stabilizing or fixing a first vertebra relative to a second vertebra, comprising:

a substantially planar rigid structure positionable on at least a portion of both of the first vertebra and the second vertebra;

a first fastener securable between the substantially planar rigid structure and the first vertebra in a fixed angular position relative to the substantially planar rigid structure;

a second fastener securable between the substantially planar rigid structure and the second vertebra in a pivotable angular position relative to the substantially planar rigid structure; and

wherein at least one of the first fastener and the second fastener comprises a tapered portion.

36. (Previously added) The system of claim 35, wherein the substantially planar rigid structure comprises a curved bottom surface.

37. (Previously added) The system of claim 35, further comprising a fusion member holdable in a position by the substantially planar rigid structure between the first vertebra and the second vertebra.

38. (Previously added) The system of claim 35, further comprising a lock system engageable with the substantially planar rigid structure and at least one of the first fastener and the second fastener to prevent backout of at least one of the first fastener and the second fastener relative to the substantially planar rigid structure.

39. (Previously added) A system for stabilizing or fixing a first vertebra relative to a second vertebra, comprising:

a substantially planar rigid structure positionable on at least a portion of both of the first vertebra and the second vertebra;

a first fastener securable between the substantially planar rigid structure and the first vertebra in a fixed angular position and a first fixed normal position both relative to the substantially planar rigid structure; and

a second fastener securable between the substantially planar rigid structure and the second vertebra in a pivotable angular position and a second fixed normal position both relative to the substantially planar rigid structure.

40. (Previously added) The system of claim 39, further comprising a lock system engageable with the substantially planar rigid structure and the first fastener and the second fastener to hold the first fastener in the first fixed normal position and the second fastener in the second fixed normal position.

41. (Previously added) The system of claim 39, wherein the substantially planar rigid structure comprises a curved bottom surface.

42. (Previously added) The system of claim 39, further comprising a fusion member holdable in a position by the substantially planar rigid structure between the first vertebra and the second vertebra.